MS Innovations

Speaking, Training
Promotional Resources

"A Crash Course in Early Brain Development"

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Lessons Learned from the Recent Research on Early Brain Development

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1. Human Development hinges on the interplay between Nature and Nurture:

2. Early Care and nurturing have a decisive and long-lasting impact on how people develop, their ability to learn, and the capacity to regulate their emotions.

3. The human brain has a remarkable capacity to change, but timing is crucial

4. The brain's plasticity also means there are times when negative experiences or the absence of appropriate stimulation are more likely to have serious and sustained effects.

5. Substantial evidence amassed by neuroscientists and child development experts over the last decade point to the wisdom and efficacy of early intervention.

Understanding the Brain

The brain is the hardest working, most vital organ in your body. It represents less than 2 percent of your body weight and uses 25 percent of the oxygen you breathe and 70 percent of your glucose supply. It is oblong in shape, weighs almost 3 pounds, and takes up about half of the volume of your head. It has the appearance of a pinkish gray wrinkled walnut, smells like blue cheese, and feels soft and slimy like gelatin. The brain is the commander-in-chief of *everything* your body does twenty-four hours a day.

How the Brain Works

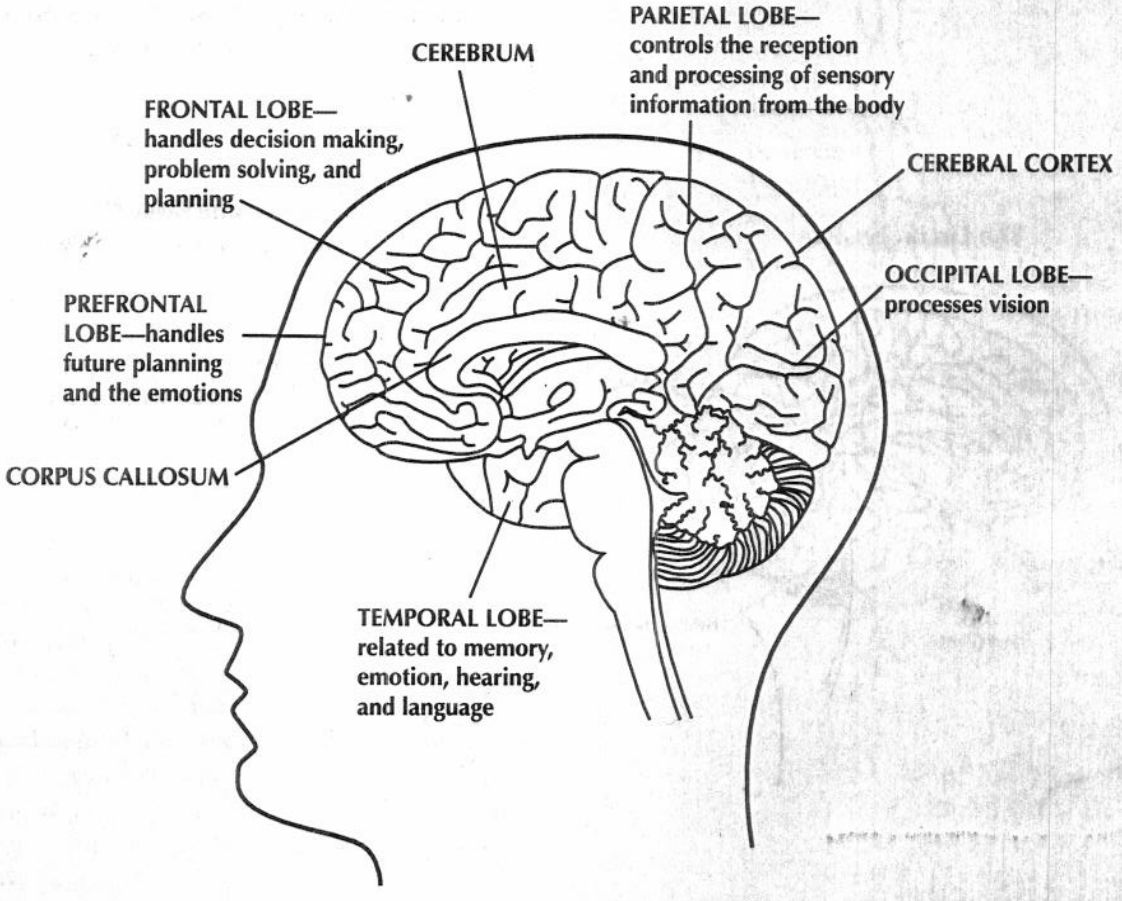
The brain is divided into three systems as defined by their function: the thinking system, the limbic system, and the automatic body function system.

The Thinking System

The *cerebral cortex* (which means bark) is the covering or outer layer of the brain. It is a 1/4-inch-thick blanket of cells that looks like a long, curled-up rope. If it were uncurled and spread out, it would cover a whole room. It is here that you do most of your thinking.

The *cerebrum* (which means not-so-little brain) makes up 70 percent of our brain. A groove in the top runs down the center, separating it into two parts, or *hemispheres*—right and left. The right hemisphere controls the left side of the body, and the left hemisphere controls the right side of the body. The right hemisphere is responsible for imagination, creativity, insight, and awareness of three-dimensional forms. The left hemisphere is responsible for verbal skills, reasoning, reading, writing, and mathematical ability.

The Thinking System



The cerebrum is divided into several *lobes*, each spanning both hemispheres. They continuously interact to help us interpret our environment.

- The *occipital lobe* (at the back of the brain) processes vision and how you interpret what you see. It matures very early.
- The *temporal lobe* (on the side of the brain, near the ears) processes auditory stimuli, which affect speech, hearing, and the development of language.
- The *parietal lobes* (toward the back of the brain) interpret and integrate information from your senses.
- The *frontal lobes* (just behind the forehead) contain your olfactory (smell) centers and handle working memory, higher-level thinking, reasoning, and problem solving.
- The *prefrontal lobes* handle future planning and work with your limbic system to handle emotions.

The *corpus callosum* is a bundle of nerve fibers that works like a coordinator. It lets one hemisphere know what the other is doing so they can work together. For example, the left side reads a word while the right side "pictures" it.

The Limbic System

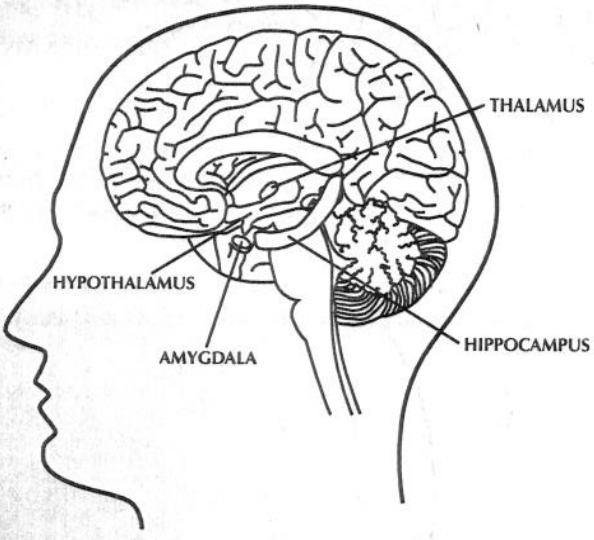
The *limbic system*, the brain's emotional thermostat, connects key parts of the brain and regulates emotion and long-term memory.

- The *hippocampus* is the "Grand Central Station" of memory. It encodes information into long- or short-term memory.
- The *thalamus* is similar to the "Port Authority" for all sensory information except smell. It takes the information and directs it to the correct part of the brain.
- The *hypothalamus* controls your hunger, thirst, sleep, sexuality, and emotions.
- The *amygdala* is concerned with the expression and regulation of emotion and motivation.

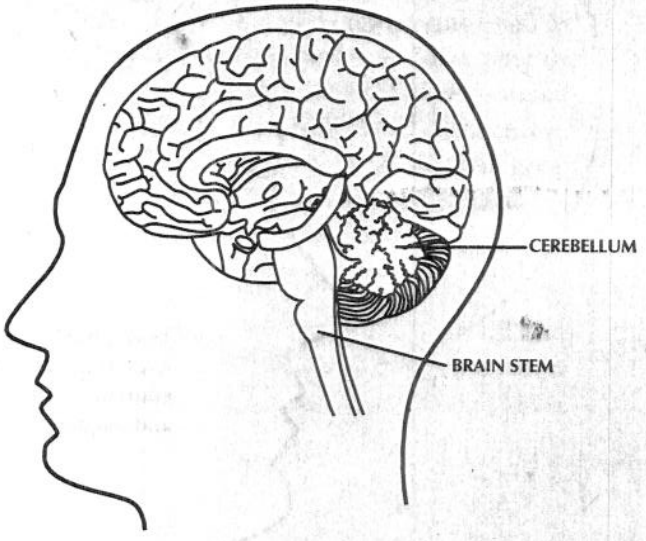
The Automatic Body Function System

- The *cerebellum* (which means little brain) acts like a small computer to coordinate some of the signals received from the cerebrum in order to control coordination and balance. It helps us perform delicate and accurate movements.
- The *brain stem* works in conjunction with the spinal cord to control functions such as blood pressure and breathing. It processes information coming into the brain from the nervous system.

The Limbic System



The Automatic Body Function System



S P E C I A L R E P O R T :

EARLY CHILDHOOD BRAIN DEVELOPMENT

This special report is intended to explain, in general, understandable terms, what the early childhood brain research means for children and families, and what is being done in North Carolina to promote this research. The intent is not to tell you everything there is to know about brain research. This special report is to get you thinking about how you can use this information in your community to spread awareness about the importance of a child's first years.

Brain Facts: Understanding the latest research

From President Clinton's White House Conference on Child Care to Gov. Hunt's Conference on Brain Development to Rob Reiner's support of the *I Am Your Child* Campaign, the entire country is talking about the latest in early childhood brain development.

New technology allows the thorough study of the brain, like we've never seen before. These studies prove that a child's early development is determined by his daily environment and experiences, rather than genetics alone. Researchers now believe it is the plasticity of the brain, its ability to develop and change in response to the demands of the environment, that enables a child to learn to use computers, solve mathematical problems and learn foreign languages.

In order to fully understand this information, we must first understand how a child's brain works and develops.

Brain Facts

• **MAKING CONNECTIONS** A child is born with over 100 billion neurons or brain cells. That's enough neurons to last a lifetime, since no more neurons will develop after birth. These neurons form connections, called synapses, which make up the wiring of the brain. (Don't worry, these terms are defined on page three!)

• **EARLY EXPERIENCES** At age eight months an infant may have 1,000 trillion synapses. However, by age 10 the number of synapses decrease to about 500 trillion. The final number of synapses is largely determined by a child's early experiences, which can increase or decrease the number of synapses by as much as 25 percent.

• **"USE IT OR LOSE IT!"** The brain operates on a "use it or lose it" principle: only those connections and pathways that are frequently activated are retained. Other connections that are not consistently used will be pruned or discarded so the active connections can become stronger.

• **DEFINING LANGUAGE SKILLS** When an infant is three months old, his brain can distinguish several hundred different spoken sounds. Over the next several months, his brain will organize itself more efficiently so that it only recognizes those sounds that are part of the language he regularly hears. During early childhood, the brain retains the ability to relearn sounds it has discarded, so young children typically learn new languages easily and without an accent.

• **THE POWER OF THE SPOKEN WORD** The power of early adult-child interactions is remarkable. Researchers found that when mothers frequently spoke to their infants, their children learned almost 300 more words by age two than did their peers whose mothers rarely spoke to them. However, mere exposure to language through television or adult conversation provided little benefit.

See Brain Facts, page 4

arenting skills. There is much that communities can also do o help families promote their child's healthy brain develop- ıent, through programs like *Parents As Teachers*.

PARENT EDUCATION Parents must be educated bout the importance of proper early experiences. The little ıings that parents do, like talking to an infant, reading to him t an early age and helping him play simple games, have ıany lasting effects.

CHILD ABUSE AND NEGLECT PREVENTION It is nportant, as always, to stress the prevention of child abuse nd neglect during the developmental years. Greater attention ıust be given to preventing maltreatment before it starts. ligh-quality home visitation programs which start working ith families as soon as the child is born have proven to be ffective in preventing abuse and neglect. These programs elp parents manage the stresses of raising children and revent unhealthy patterns from developing.

PROPER PRENATAL CARE Many studies have shown ıe devastating effects on intelligence and brain development om a lack of basic nutrients at the prenatal stage, in infancy ıd early childhood. Educational and outreach campaigns to ert women to the importance of nutrition during pregnancy ould also be helpful in preventing problems that can arise in is critical period when brain cells begin to form.

trained, underpaid, and do not provide children with appropriate stimulation. Research has shown that in the majority of infant care arrangements in the U.S., children are not talked to and played with enough, and they do not have the opportunity to form the kind of comfortable, secure relationships with a caregiver that will promote their healthy emotional development. Programs like *T.E.A.C.H.* can assist in educating child care providers.

CHOOSING QUALITY CHILD CARE Parents should be given information about how to choose high quality child care for their children, as is available from many child care resource and referral offices around North Carolina. In addition, special attention must be given to the development and enforcement of child care licensing standards that promote high-quality care.

Our increasingly technically and socially complex society cannot afford to continue to allow large numbers of children to miss out on the positive experiences they need in infancy and early childhood; the costs in terms of lost intellectual potential and increased rates of emotional and behavioral problems, are too high. The new developments in brain research show us what children need; our challenge is to ensure that every child receives it!

The Effect of Abuse and Neglect on Brain Development

At the CIVITAS Child Trauma Programs at Baylor ollege of Medicine, Bruce Perry and co-workers have udied the impact of neglect and trauma on the neurobiology of over 1,000 abused and neglected children. In ne study, 20 children who had been raised in globally nder-stimulating environments- children who were ırely touched or spoken to and who had little opportuity to explore and experiment with toys- were examed with sophisticated new brain-imaging techniques ıd other measures of brain growth. The children were ound to have brains that were physically 20 to 30 ercent smaller than most children their age and, in over alf the cases, parts of the children's brains appeared to ave literally wasted away. --- *Starting Smart: How arly experiences affect brain development, An Ounce of revention Fund, 1996.*

Brain development makes economic sense

To invest early in a child's life to build a good foundation for learning and emotional development can save taxpayers a tremendous amount of money. Here are a few examples:

- **Risk vs. Opportunity-** Specific cost benefit ratios:
  Family Planning- Save $4.40 for every $1
  Quality Preschool- Save $7.16 for every $1
  Home Visits- Save $5.63 for every $1
  School-Based Clinics- Save $7 for every $1

- **Get businesses involved-** To increase the productivity of any business, employees need to be assured the care their child is receiving is adequate, reliable and of high quality. To have a well-qualified workforce tomorrow, we must start with nurturing today's growing brains.

GETTING THE MESSAGE OUT: A grassroots example

As part of her professional development goals this year, Dr. Dean Clifford, executive director of the Forsyth Early Childhood Partnership, has set out on a mission. Her goal is to find out as much as she can about the latest in early childhood brain development and share that knowledge within her community. She has already made presentations about the importance of brain research to the Forsyth County Smart Start board, subcontractors, parent educators, and civic groups and currently is planning a training session for child care providers.

Clifford recently attended the national *Parents As Teachers* conference in St. Louis, MO where brain development was the focus. Top researchers in the country attended the conference to share their findings and discuss its implications. At the conference, Clifford stressed this critical information must be translated and understandable for parents and child care providers and it must be shared throughout every community.

We've never had such an effective tool for advocacy.

-- Dr. Dean Clifford

"Brain research stresses the window of opportunity in a child's life for brain growth and development," Clifford stresses. "It is our responsibility to use this opportunity to talk about this issue everywhere we go.

"This is an issue that captures the attention of businesses, school teachers, community leaders. We have to capitalize on that attention so everyone in the community knows about this."

The latest research validates what Smart Start had been working on for years. Clifford has used every opportunity to spread this message. She is actively looking for upcoming civic and religious meetings and presentations that she can participate in. This is what we all must do to ensure that every parent knows about this critical information.

From taxi drivers to the person sitting next to her on an airplane, Clifford tells everyone she meets about this important information; and Clifford's enthusiasm is catching on.

Following the *Train the Trainer* session facilitated by researcher Dorothy Routh of Florida State University earlier this year, a small group, led by NCPC Evaluation Coordinator Sharon Thompson, is developing 20-minute and two hour presentations on the latest brain research. These presentations will be available to local partnership executive directors to share within their communities. These presentations are expected to be available in Spring 1998.

In conjunction with the *I Am Your Child* national public engagement campaign, parenting videos, CD-ROM, booklets, fact sheets and flyers are now available to help families understand this information. Also, a comprehensive study from the Rand Corporation is expected to be released late December 1997 or early January 1998 that focuses on the economic aspects of quality child care and the role of businesses in providing quality child care.

GLOSSARY OF BRAIN TERMS

Dendrite- finger-like extensions of a neuron that receives signals or chemical messages and stimulates activity in the receiving neuron

Neurons- brain cells which are rapidly developed before birth, but are no longer formed after birth

Neurotransmitters- an on/off switch that acts as a chemical switchboard which regulates the brain's senses and behavior. Types of neurotransmitters include *melatonin, seratonin, endorphins, cortisol, noradrenaline*

Melatonin- chemical which promotes sleep and is activated by calcium and darkness

Seratonin- low levels of this chemical are associated with aggression and anger; moderate levels- relaxation and sleep

Endorphin- chemical released in presence of pain, vigorous exercise and relaxation

Cortisol- found in saliva, this chemical regulates stress to protect our body from physical danger

Noradrenaline- leads to heightened awareness, rapid heart beat; puts body in fight or flight mode

PET Scan- (positron-emission tomography) new technology that allows scientists to see and measure the brain's activity

Plasticity- the brain's ability to develop and change in response to the demands of the environment

Pruning- the elimination of excess synapses or connections that creates a more powerful and efficient system of connections or pathways; pruning also allows the remaining synapses to function at a higher level

Synapse- a neuron connection made depending on the stimuli or signals from the brain

Wiring- the architectural design of the brain; the network of connections which allows thinking and learning

Brain Facts, from page 1

Infants need to interact directly with others. Children need to hear people talk to them about what they are seeing and experiencing, in order for their brains to fully develop language skills.

• **THE LOVING TOUCH** Warm, responsive caregiving not only meets an infant's basic, day-to-day needs for nourishment and warmth, but also responds to their preferences, moods and rhythms. Recent research suggests that this kind of consistent caregiving is not only comforting for an infant, it plays a vital role in healthy development. The way that parents, families and other caregivers relate and respond to their young children, and the way they respond to their children's contact with the environment, directly affect the formation of the brain's neural pathways.

• **CREATING ONE STABLE BOND** Researchers who examine the life histories of children who have succeeded despite many challenges, have consistently found that these children have had at least one stable, supportive relationship with an adult early in life.

For more information about the SmartStart Times, the bi-weekly newsletter of the N.C. Partnership for Children, contact the communications department at 919-821-7999 or by e-mail at *times@smartstart-nc.org.*

Next Steps: What can you do?

✦ Incorporate this research into your Smart Start plan and activities. Use this information as criteria for establishing new programs.

✦ Build your own personal "brain" capacity-- research and learn as much as you can so you can become the official "expert on brain development" in your community.

✦ Bring parents, churches, pediatricians, business and county leaders to the table to discuss the importance and implications of this research.

✦ Talk about this critical information with everyone you see-- from your county's top business leaders to the person behind you in the grocery store check-out line.

✦ Arrange speaking engagements with civic groups, parenting classes, county meetings and churches to share these brain facts.

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This **SmartStart*Times*** is a biweekly publication of the N.C. Partnership for Children. Information for this report was obtained from the **Families & Work Institute, An Ounce of Prevention Fund, Dr. Dorothy Routh of Florida State University,** and the national ***I Am Your Child*** campaign.

Facts About Brain Development and How Children Learn

From-The Rhode Island Governor's Policy Seminar on "Brain Development Research"

The Developing Brain

- ✓ Neuroscience deals with the "hardware of the mind"—the physical brain. The cognitive sciences (cognitive psychology, linguistics, artificial intelligence, and so on) delineate the mind's functions.
- ✓ While neuroscientists believe that some neurons, such as those controlling heartbeat, breathing, and body temperature, are "hard-wired" from the moment of conception, other neurons continue to develop rapidly after birth in response to environmental stimuli.
- ✓ A baby's brain at birth contains 100 billion nerve cells (neurons) with 50 trillion connections (synapses) to other nerve cells. By the time the baby is a year old, its brain will have formed over 1,000 trillion connections.
- ✓ Infants are primed to learn language from their earliest moments. Children who receive inadequate early exposure to their native languages—talking, singing, reading—may fail to develop the critical language skills they'll need to learn to read and perform well in school.
- ✓ Music may train the brain for higher forms of thinking. Preschoolers in a California study scored 80% higher than their playmates in spatial intelligence after eight months of piano and singing lessons.

The Prenatal Environment

- ✓ Nearly 25% of pregnant women receive little or no prenatal care.
- ✓ Low birthweight babies are more likely to be learning disabled. Babies weighing less than 3.3 pounds are 100 times more likely to have visual and auditory impairment and learning disorders, including impaired language skills requiring remedial instruction.
- ✓ Approximately 12% of children are born with decreased intellectual capacity or birth defects because their mothers used unhealthy substances or were malnourished during pregnancy.
- ✓ Fetal alcohol syndrome is the United States' leading identifiable cause of mental retardation and neurologic impairment. About 40,000 babies are born with fetal alcohol effects resulting from maternal alcohol use; about 7,000 of those infants have full-blown fetal alcohol syndrome.
- ✓ Newborns and children of smokers are smaller in stature and lag behind other children in cognitive development and educational achievement. They are more likely to have hyperactivity and attention disorders.

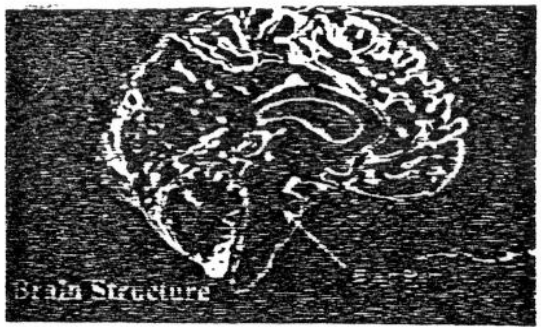
The Early Childhood Environment

- ✓ Only about half of parents read to their infants and toddlers or sing and play music to them every day.

- ✓ One-fourth of families with children under age 3 are poor.
- ✓ Nearly 10 million children under age six spend their days in day-care facilities. Half of those children are under age 3. But only one in six of those children attends a high-quality day-care center.
- ✓ Children who receive poor-quality day care show delayed cognitive and language development, pre-reading skills, and other age-appropriate behaviors. They are not attached to their caregivers and are more aggressive than other children.
- ✓ Day-care workers are paid about 25% less than they would earn in other service jobs. They receive no training in early childhood development.

Special Education/Early Intervention

- ✓ Special education costs are rising nationwide. More than 5 million students are served by special education, to the tune of $32 billion annually.
- ✓ New York City spends 25% of its $2 billion annual schools budget on special education programs for just 12% of its students.
- ✓ Special education placements rose more than 12% from 1987-1992, compared to 3.5% for general education enrollments.
- ✓ Only 5% of special education students move into regular classes each year. More than a third become dropouts. Only 1.5% ever earn a diploma.
- ✓ Early intervention pays big dividends: Massachusetts saved $2,705 per child over the cost of early intervention services in just one year; Montana saved $2 for every $1 spent on early intervention by the time the children reached age 7; Texas reduced its special education placements by 20% for children in early intervention programs.


Brain Structure

How the Brain Learns

For teaching to be truly effective, the student must be motivated to connect the content of knowledge with the context of application. The human brain is a wondrous biological instrument consisting of many interconnected parts. Functionally speaking, these can be divided into three major systems (see illustration).

The smallest and most primitive system of the brain consists of the brain stem or lower brain, which controls automatic body functions such as breathing and heartbeat, and the cerebellum, which controls muscular activity and balance.

Most biologically driven behavior can be traced to these two structures, which we can think of collectively as the "automatic reflex brain."

The second part of the brain is the limbic system, or "memory brain," which is concerned especially with memory, emotions and motivation. It includes the hippocampus, which plays a large role in memory-related learning; the thalamus, which relays information from the senses to the cerebral cortex; the hypothalamus, which controls sexual urges and other motivation; and the amygdala, which controls anxiety and fear.

The third part of the brain is the cerebrum, or "thinking brain," which fills the entire upper part of the skull. It is composed of a soft, wrinkled outer layer called the cerebral cortex and underlying mass of connected nerve fibers. This part of the brain controls and connects higher functions of learning, judgment and intelligence, functioning much like a large computer.

What we do in much of contemporary teaching pedagogy is require students to commit bits of knowledge to memory in isolation from any practical application and to simply take our word that they "might need it someday." With the exception of a minority of students who learn well conceptually, many American students just aren't buying that. The majority of students fail to see much meaning in what they are asked to learn—and they don't learn it well enough to utilize that knowledge in future problem-solving situations. The brain is not a freezer for information. It's more like a computer that processes knowledge.

The brain tends to discard information for which it finds no connection or meaning, or for which the meaning is obscure. The real trick is how to move the information from the "memory brain" (the limbic system) to the "thinking brain" (the cerebrum). Neuroscientists have discovered the gene that moves from the limbic system into the cerebrum. The problem is they don't know the chemistry that actually moves it—yet. What we are sure of now is that connecting knowing and doing promotes true understanding and moves information into the cerebrum.

Here are some resources for more on the brain's learning functions:

www.brains.org—"Brains.Org" offers practical applications of current brain research. This site also features links that relate learning theories to classroom management challenges.

www.kn.pacbell.com/wired/fil/pages/listbrainrese.html—"Brain Research and Learning" contains links to several research and article sources, including abstracts from ERIC.

www.thebrainstore.com—"The Brain Store" features an online catalog dedicated to books, audios, videos, posters and more—all relating to the brain and learning. The site also offers free product samples. —*D.P.*

5. Brain Based Learning

- **Left Brain/Right Brain**

- ***Brain Compatible Learning***

Uniqueness-*every child has different genetics and experiences, Multiple intelligences-All good at different things!!*

Impact of high stress or threat-*affects body chemistry*
Developmental stages of readiness (windows)-*Optimal times and readiness*
Enrichment-*Many influences in the environment, Novelty, challenge, feedback, Meaningful and sufficient time*
Emotions essential to learning-*Emotional intelligence, attaching emotional meaning*
Memory and retrieval paths-*Information and experiences stored in "memory lanes"*
Semantic-*acronym (like HOMES, the great lakes,PARCA) pegs, one-sun, two-shoe, etc.*

Episodic-*Attach it to an experience you remember (where were you when you heard JFK or Diana died?*

Procedural-*known as muscle memory-hands on learning like riding a bike (repetition)operating a cash register, typing*

Emotional *-specific chemicals in our brain causes these emotions to be stronger than others activity p. 28*

Reflexive-or automatic *non concious learning-things that become automatic by repitition..shake hands, habits…nail biting,lines to a song, the alphabet*

All learning is mind-body-*Your mind can affect your body and vice-versa. The moving brain…thumbs up, smile-lips upward, look up, move thumbs up and down…think of something depressing…***you can't!!**

Patterns and programs drive understanding—*global overviews (mind mapping, chunking)*

Drive for meaning-*video..contextual learning..*

The social brain-*Brain develops better in concert with others*

Name _____ Date _____ Class Period _____

Put Your Brain to the Test

Amygdalas are almond-shaped structures that are part of the limbic system of the brain. They link good and bad emotions to memories. Amygdalas help us with the flight or fight response. For example, if a dog bit you when you were little and you are still fearful around these animals, you have your amygdalas to thank for that.

Directions: Follow the instructions for each question to see your amygdalas at work.

1. Using the list provided, write down the emotions and memory each entry evokes in you. Try to form a picture in your mind as you think of the word.

   Kittens _____

   Puppies _____

   Your favorite song _____

   A day at the beach _____

   Valentines _____

   Football games _____

   The prom _____

2. Describe an incident that made you very happy. How much detail could you remember?

   _____

   _____

   _____

   _____

   _____

3. Describe an incident that made you very sad. How much detail could you remember?

   _____

   _____

   _____

   _____

   _____

(continued on next page)

Name _____ Date _____ Class Period _____

4. As you read the following words, try to imagine what they smell like, and describe the scents here:

Chocolate cake _____

_____

Apple pie _____

_____

Licorice _____

_____

Cinnamon buns _____

_____

Thanksgiving turkey _____

_____

Freshly brewed coffee _____

_____

5. As you read the following words, try to imagine what they sound like, and describe the sounds here:

Your alarm in the morning _____

_____

Rush hour traffic _____

_____

Your favorite song _____

_____

Roaring applause _____

_____

Waves crashing on the beach _____

_____

These memories are so vivid because they are probably linked to an emotion. Your amygdalas are partly responsible for placing them in your long-term memory.

Marilyn Swierk, CFCS, CFLE, *Speaker, Author, Consultant*

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Call or write today…ask for sales brochure with promotional items!

Marilyn Swierk, President of MS Innovations, is well known for her presentations at the state and national level. She is the author of: "Nurturing Brain Development," "Parenting Rewards and Responsibilities: Enrichment Activities," *and* "Parent and Home Involvement" *booklets, published by Glencoe/McGraw-Hill,* "A Guide to Service-Learning," *and* "All I Ever Needed to Know I Learned in Family and Consumer Sciences," *published by MS Innovations, was the originator of the* "ESAE Best Practices Guide" *and the "Research to Practice Roundtables CD Rom.". She has also made contributions to several books and numerous magazine articles.*

She was the recipient of the American Association of Family and Consumer Sciences (AAFCS) 2003 Commemorative Lecture Award, the 2001 Leader Award, and the 1993 National Teacher of the Year. She also received, the 2003 University of Rhode Island (URI) Alumnae Achievement Award, the 1996 URI *Alumni Excellence Award in Education, and was chosen as a 1995 Alpha Xi Delta National Woman of Distinction.*

She serves on the AAFCS Board of Directors as a Director-at Large and was the former Vice President of Services and Vice President of Program. She also served AAFCS as Section Chair for Elementary, Secondary, and Adult Education, Chaired the Early Childhood Initiative, and serves on the National Media Response Team. She is the national Vice President of Programming for Prepare Tomorrow's Parents, was on the development panel for National Standards for Family and Consumer Sciences Education.

Presentations have been made at numerous national and state conferences throughout the country, and may be adapted for keynotes, training sessions, or workshops. Topics may be tailored to suit the needs of the individual group. Fees vary depending on services required and are negotiable. Travel/expenses,separate. ***References Available upon request***

- ***PREPARE FOR L-I-F-E... ALONG WITH THE S.A.T.** ***(Get with the Real World!)***
  There's more to education than SAT scores. All students need to be prepared for life and work. Take a motivational look at the WHO, WHAT, WHEN and HOW of education!
- ***EVERYONE NEEDS THE F.A.C.S. * OF LIFE! © *** ***(Family and Consumer Sciences)***
  Learn the answers to the following questions, and how you can make those answers work for you! WHO are the family and Consumer Sciences professionals? WHAT do they do? WHY are they so important? WHAT good will it do for Individuals? Families? Communities?
- ***LIFE IS THE FINAL EXAM Issues that systemic change must address to assure that education prepares every student for their roles as productive individuals at home, work, and in the community, are showcased in this presentation which is lightened with humor.**
- ***PACE YOURSELF BEFORE YOU ERASE YOURSELF-A humorous reality check as to how we take on too much and what to do about it!**
- **SPINNING THROUGH THE FAMILY LIFE CYCLE-DON'T GET CAUGHT IN THE RINGER! A humorous and reflective look at the issues and concerns of the stages that all families go through with practical advice and assurance for parents.**

Often used as Motivational keynotes

STRENGTHENING YOUR PROGRAM THROUGH SERVICE-LEARNING & SCHOOL TO CAREER Learn the Who, What, When, Where, and How of *Service-Learning* and its relationship to *School to Career transition* and *educational reform*- See how the visibility of education and your expertise can be positively increased by addressing the present and emerging needs of young people, the work force and the community by joining these areas through *educational partnerships & service-learning.* (Can also be a one or two+ day training session)

- **A CRASH COURSE ON THE IMPLICATIONS OF EARLY BRAIN DEVELOPMENT What's all the fuss about and what role can you play? A very basic overview of brain development and implications for educators, families, policy makers, business and others. (keynote, breakout or training)**
- **PROJECTING PROFESSIONALISM We judge and are being judged every day. Presenting the desired first and lasting impression is especially important in projecting one's personal or professional image, or that of a program or business. Useful for professionals who deal with the public, and their clients, students and community.**
- **LIFE SKILLS FOR LITTLE ONES Teaching life skills to young children increases the school to career transition skills of their teenage teachers, while reinforcing a program's message and visibility. May be used in an educational program, as a club activity, after school program, service-learning or as a business.**
- **INTERGENERATIONAL IS SENSATIONAL Bring laughter and tears to your work. Discover how this type of involvement helps to develop community rapport and support for education. How to's, ideas, and resources will be illustrated.**

OTHER TOPICS INCLUDE: ***Maximizing relationships through understanding people styles, Developing Business/Education Partnerships, Communication, Parent Involvement, Facilitation Methods and more!!***

Or...topics may be designed to suit your needs!

Marilyn Swierk, CFCS,CLFE
1993 National Family & Consumer Sciences
Teacher of the Year
Speaker* Trainer*Consultant
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GRAPHIC/ WORDING For Items #2-5: WORDING for Items # 2-5

All I ever need to know I learned in Family and Consumer Sciences

GRAPHIC/ WORDING For Items #6-11:

THE TOP TEN REASONS WHY YOU NEED THE F.A.C.S. * OF LIFE*

ITEM NUMBER	Description	Quantity	COLOR	SIZE	UNIT PRICE	Shipping per item	TOTAL
#1	Guide To Service-Learning The Who, What, Where, When and How to's of managing a successful program with steps, ideas, reproducible forms and resources				$39.95	$3.00	
#2	Tee: Short sleeves Long sleeves *(circle one)*		Gray or white *(circle one)*		$17.00 $20.00	$2.50 $2.50	
#3	Sweat shirt		Gray or white *(circle one)*		$27.00	$3.50	
#5	18"x27" Heavy weight poster		White with black and red letters		$13.00	"	
#6	Tee		Natural		$15.00	"	
#9	15" x 20" fabric poster unhemmed		Natural		$10.00	"	
#11 NEW!!	18"x27" Heavy weight poster "TOP TEN REASONS WHY.. YOU NEED THE FACS....."		White with black and bright blue letters		$13.00	"	
ITEMS 12—16 Logo: "Family and Consumer Sciences Puts the Pieces of Life Together" *Cream color lettering*							
#12	Patchwork cat family		"Denim" Blue		$15.00	"	
						"	
#14	Raggedy Ann		Dusty Mauve		$15.00	"	
#15	Bear Family		Cactus Green		$15.00	"	
# 16	Animal Family in Ark		Plum		$15.00	"	
#17	Buttons *(Please circle choice)*		FCS...Don't leave school without it!	Get the FACS of Life!	$2.00	.50	

Please note: add $1 for XXL. *Checks or Purchase orders accepted*

SHIP TO:

YOUR E MAIL ADDRESS PLEASE:

TOTAL: